

Regulatory Framework



FACT SHEET

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Domestic natural gas and oil exploration and production are vital to America's quest for energy independence and to the country's economy. In addition to royalty and bonus payments for mineral owners, the nation's natural gas and oil industry continues to create jobs and employ millions of Americans.

Chesapeake Energy Corporation's recent efforts have focused on the discovery and development of unconventional, onshore natural gas and oil fields. These deep shale wells differ from shallower wells, such as coalbed methane or conventional oil, in that they are generally located from 5,000 to 13,000 feet (one to two miles) below the surface. In contrast, domestic and public water supply wells are located 1,000 feet (less than one-fourth of a mile) below the surface, with the overwhelming majority being found at 500 feet or less. Because of this, nearly all potentially treatable drinking water is far removed and protected from the effects of drilling operations by thousands of feet of rock.

Natural Gas and Oil Regulations

The development of natural gas and oil, including from deep shale formations, is regulated under a stringent system of federal, state and local laws that address every aspect of the industry's operations. The U.S. Environmental Protection Agency (EPA) administers federal environmental laws, either directly or by delegating authority to the states. In addition, all natural gas and oil operations on federally-owned land are managed by the U.S. Department of the Interior's Bureau of Land Management and the U.S. Department of Agriculture's U.S. Forest Service. At least one regulatory or administrative agency in each state permits and regulates operations (including design, location, spacing, operation, production rate and abandonment/closure). Their oversight covers environmental activities including, but not limited to, water management, waste management and disposal, air emissions, underground injection, wildlife impacts, surface disturbance and worker health and safety. Increasingly, state oversight requires specific disclosures of hydraulic fracturing chemicals to the appropriate agencies and fracfocus.org.

Not all wastes are regulated in the same manner. Congress and the EPA have evaluated wastes from different industry sectors – including the energy industry – and determined that a one size fits all regulation is not appropriate. This is due to the variation in the chemical makeup of different wastes, the potential impact to human health and the environment,

KEY POINTS

- Shale natural gas and oil production is heavily regulated under a variety of federal, state and local laws.
- States effectively implement many federal environmental programs in addition to their own laws and requirements.

and the need for different handling and disposal. Importantly, where a federal law and/or regulation allows for special circumstances, or even an exemption, there are other federal and/or state laws and/or regulations in place to oversee those particular activities, such as:

- The **Clean Water Act**, which regulates surface discharges associated with drilling and production and storm water runoff from production sites to certain waters.
- The Underground Injection Control program of the **Safe Drinking Water Act**, which regulates the underground injection of wastes from all industries including the natural gas and oil industry.
- The **Clean Air Act**, which limits air emissions from engines, gas processing equipment and other sources associated with drilling and production.
- The **Resource Conservation and Recovery Act** (RCRA), which contrary to popular belief, the natural gas and oil industry is not exempt from. Each industry sector has one or more specific classifications under the RCRA. Under this act, Chesapeake is required to handle and dispose of its waste and refuse in compliance with specific guidelines.
- The **National Environmental Policy Act** (NEPA), which requires that exploration and production on federal lands be thoroughly analyzed for environmental impacts.

- The **Emergency Planning and Community Right-to-Know Act (EPCRA)**, which requires Chesapeake to notify local first responders and authorities about the type and amount of chemicals on location, as well as proper emergency response and planning in the event of an accident.
- The **Occupational Safety and Health Act (OSHA)**, which protects the health and safety of industry workers.

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Cooperative Federal and State Oversight

Most federal regulatory programs across virtually all industry sectors are implemented by the states given their first-hand knowledge of local characteristics, understanding of the issues and a well-established regulatory framework. This collaborative federal/state effort is highly effective at protecting human health and the environment. This is because states have many tools at their disposal to assure that operations, including deep shale natural gas and oil exploration, do not adversely impact the environment.

For instance, many states oversee the protection of ground and surface water through the enforcement of an underground injection control program (Class II wells) and the previously mentioned waste disposal programs. These state programs are either run as mandated by the EPA or by the state's own standards, which are as stringent as or frequently stricter than the EPA requirements. This cooperative approach to environmental protection also assures that any potentially treatable drinking water zones are completely sealed off from deep shale natural gas and oil wells through the use of stringent and protective cementing and casing programs.

Through the combination of federal and state oversight, the regulation of natural gas and oil exploration and production is a thorough and exhaustive approach. States have broad powers to regulate, permit and enforce all activities including drilling, hydraulic fracturing and production operations, managing and disposing of wastes and

abandoning and plugging wells. Different states take different approaches to regulations and enforcement, but state laws generally give broad discretion to natural gas and oil and environmental regulators to protect human health and the environment.

Altogether, there are numerous environmental compliance requirements for natural gas and oil operations under a variety of federal environmental laws such as those previously mentioned. In many cases, the states administer these requirements under primacy agreements with the EPA in addition to their own environmental laws. In other cases the EPA regional office is directly responsible for enforcing regulations. The end result is that there is abundant environmental regulation of the natural gas and oil industry, which assures that operations meet or exceed environmental standards.

Information Sources

- Ground Water Protection Council
- Independent Petroleum Association of America
- Interstate Natural gas and oil Compact Commission
- U.S. Department of Energy
- U.S. Department of the Interior
- U.S. Environmental Protection Agency

About Chesapeake

Chesapeake Energy Corporation is the second-largest producer of natural gas, a Top 15 producer of oil and natural gas liquids and the most active driller of new wells in the U.S. Headquartered in Oklahoma City, the company's operations are focused on discovering and developing unconventional natural gas and oil fields onshore in the U.S. Chesapeake owns leading positions in the Barnett, Haynesville, Bossier, Marcellus and Pearsall natural gas shale plays and in the Granite Wash, Cleveland, Tonkawa, Mississippi Lime, Bone Spring, Avalon, Wolfcamp, Wolfberry, Eagle Ford, Niobrara, Three Forks/Bakken and Utica unconventional liquids plays. The company has also vertically integrated its operations and owns substantial midstream, compression, drilling, trucking, pressure pumping and other oilfield service assets. For more information on Chesapeake environment initiatives, visit the environment section of CHK.com, HydraulicFracturing.com, NaturalGasAirEmissions.com, NaturalGasWaterUsage.com, AskChesapeake.com or FracFocus.com.